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FOREST RESEARCH NOTES

CALIFORNIA FOREST AND RANGE EXPERIMENT STATION
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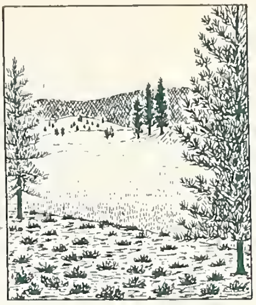
U.S. DEPARTMENT OF AGRICULTURE - FOREST SERVICE



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AN "OUTRIGGER" TYPE DEER FENCE[1]

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Fences of one kind or another have been in ever increasing use in the western range country since the start of the homestead era. Ordinary barbed-wire fences served well until the eruption of big game numbers. It is now generally recognized that this type of fence is wholly inadequate where the movement of big game animals must be controlled.

Controlling deer movements has required construction of expensive, woven-wire fences, 8 to 9 feet high. Although fencing is by no means an answer to all of the problems of deer management, a cheaper deer-proof fence would open up many possibilities for range improvement and other land management practices in many sections of the country. A cheaper fence would also benefit research on game ranges, for the cost of fencing has often forced researchers to use plots that are inadequate in size.

Such a fence has been developed in a research project conducted cooperatively as a Pittman-Robertson Federal Aid Project by the California Department of Fish and Game and the California Forest and Range Experiment Station. (This fence was designed by A. L. Hormay, one of the leaders of this project.) Known as an "outrigger" (fig. 1), the fence was built on the theory that a deer must be rather close to the base of the fence in order to jump over it. The outrigger, an extension sloping from the top of the 4½-foot upright structure to a point on the ground 8 feet from the base of the fence, prevents the deer from approaching close enough to jump. This type of construction has been used to exclude deer from study plots on three

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[1] Contribution from cooperative investigation between the California Forest and Range Experiment Station and the California Department of Fish and Game. Work was done under Federal Aid in Wildlife Restoration Act, Pittman-Robertson Research Project W51R, entitled "Game Range Restoration."

The California Forest and Range Experiment Station is maintained at Berkeley in cooperation with the University of California.

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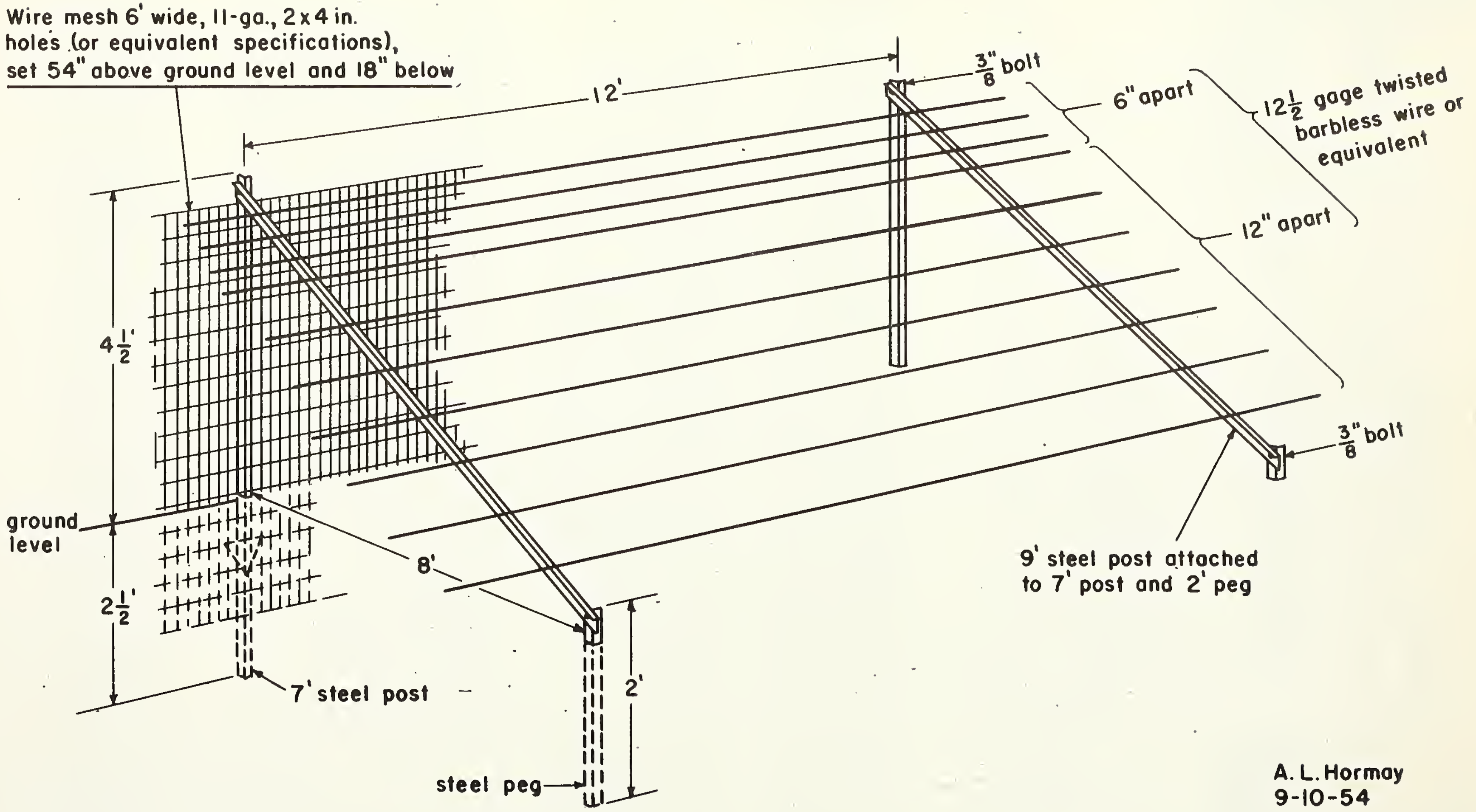
Wire mesh 6' wide, 11-ga., 2x4 in. holes (or equivalent specifications), set 54" above ground level and 18" below
12'
$\frac{3}{8}$" bolt
6" apart
$12\frac{1}{2}$ gage twisted barbless wire or equivalent
12" apart
$4\frac{1}{2}$'
ground level
$2\frac{1}{2}$'
8'
7' steel post
2'
steel peg
9' steel post attached to 7' post and 2' peg
$\frac{3}{8}$" bolt
A. L. Hormay
9-10-54

Figure 1.--General view of a section of a deer-proof fence.
Game Browse Project W51R.

east Sierra deer winter ranges. It has given excellent results through three winters. To date, there has been no record of a deer crossing one of these fences.

The outrigger fence was constructed at a cost of between 1 and 2 dollars per linear foot. This is too expensive for wide-scale use. Costs could be reduced a great deal by using wooden posts obtained locally and by reducing the depth to which the wire mesh is buried in the ground, but somewhat higher maintenance costs might result. On the other hand, it may be unnecessary to bury the wire mesh. Deer have been observed digging under fences, but this is not common enough, so far as we know, to present a real problem in fencing against deer. Construction of the fence without burying the wire would reduce the cost materially.

Attaching the outrigger to existing range fences seems worth trying, particularly on fences designed to turn sheep. This adaptation may be impractical for use by individual stockmen but might prove to be very useful to public agencies.

These changes need testing and other innovations may reduce costs or increase efficiency but the principle of an outrigger type of fence may answer the need for an inexpensive deer-proof fence.